

REMARKS/DISCUSSION OF ISSUES

Claims 1-19 are pending in the application.

Applicant acknowledges the indication that claims 16-17 define patentable subject matter and would be allowable if rewritten in independent form including all limitations of their respective base claims and any intervening claims.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

35 U.S.C. § 103

The Office Action rejects: claim 1-4, 6, 8, 10-11, 13, 15 and 19 under 35 U.S.C. § 103 over Hagen et al. U.S. Patent 6,182,030 ("Hagen") in view of Fukuda U.S. Patent 6,434,275 ("Fukuda"); claims 5, 9, 12 and 18 under 35 U.S.C. § 103 over Hagen in view of Fukuda and further in view of Chao et al. U.S. Patent 5,204,882 ("Chao"); claims 7 and 14 under 35 U.S.C. § 103 over Hagen in view of Fukuda and further in view of Van Wie U.S. Patent 6,240,185 ("Van Wie").

Applicant respectfully traverses all of these rejections for at least the following reasons.

Claim 1

M.P.E.P. § 2143 states:

"To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations."

Applicant respectfully submits that the Office Action clearly fails to satisfy at least the first and the third of these three criteria.

At the outset, the Office Action clearly fails to establish that the prior art references teach or suggest all the claim limitations

Among other things, the method of claim 1 includes distorting the bitstream of a primary signal by a particular distortion representing a secondary signal.

The Office Action never even makes explicit mention of the feature of distorting the bitstream of a primary signal **by a particular distortion representing a secondary signal**. Instead, the Office Action merely states that "*Hagen is silent on the capability of showing the bitstream of the primary signal is distorted and then outputting the bitstream of the primary signal.*" But of course, in any event, that is only part of the features of claim 1. Specifically, even if, *arguendo*, Hagen (or even some proper modification of Hagen based on the teachings of Fukuda) actually disclosed distorting a primary bitstream and then outputting it, that would still not disclose the method of claim 1, because in the method of claim 1, **a secondary signal of a secondary channel is represented by the particular distortion of the primary signal of the primary channel**.

So, the Office Action even fails to even assert that any combination of Hagen and Fukuda would produce a method including all of the features of claim 1.

The Office Action states that Fukuda discloses a method of reducing block distortion which occurs when image data is block coded, and that when a parameter obtained from input image data and indicating the degree of difficulty in encoding is used to determine block distortion for the purpose of reducing the block distortion, then the determination can effectively be performed and incorrect determination can be reduced.

So what? This not being what is claimed in claim 1. What does determining a degree of difficulty of encoding an image, and then using that information (together with other information) to determine whether block distortion has occurred and then to attempt to correct the block distortion, have to do with a process of distorting a first bitstream with a specific distortion that represents a secondary signal of a secondary channel? Applicant respectfully submits that Fukuda – like Hagen – does not disclose distorting a first bitstream with a specific distortion that represents a

secondary signal of a secondary channel.

Therefore, very clearly, no possible combination of Hagen and Fukuda could ever possibly produce the method of claim 1 including such features.

This is now the second consecutive Office Action which has filed to cite anything in any combination of cited references which would produce a method that includes distorting the bitstream of a primary signal by a particular distortion representing a secondary signal. Applicant respectfully submits that claim 1 is clear and unambiguous and very easy to comprehend. In the method of claim 1, a secondary signal of a secondary channel is represented by the particular distortion of the primary signal of the primary channel. Indeed, this is the second consecutive Office Action which does not even mention this feature.

Applicant respectfully requests that the Examiner either cite a proper combination of references that discloses distorting the bitstream of a primary signal by a particular distortion representing a secondary signal, or allow Applicant's claim 1.

Furthermore, Applicant respectfully traverses the proposed combination of Hagen and Fukuda for at least the following reasons.

Applicant respectfully submits that the Office Action fails to establish some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings (see M.P.E.P. § 2143, cited above).

The Office Action col. 1, lines 10-12 and 25-29 of Hagen (!) as somehow providing motivation for to combine some teaching from Fukuda with Hagen "to strip bits from an existing bit stream while maintaining the ability to reconstruct a speech signal," and "to provide high quality of coding of acoustical signals at low bit rates."

Applicant respectfully asks what does any of that have to do with determining a degree of difficulty of encoding an image, and then using that information (together with other information) to determine whether block distortion has occurred and then to attempt to correct the block distortion – which is the teaching of Fukuda cited in the Office Action that is supposedly being combined with Hagen? Furthermore,

where does anything in Fukuda teach that determining a degree of difficulty of encoding an image, and then using that information (together with other information) to determine whether block distortion has occurred and then to attempt to correct the block distortion will “strip bits from an existing bit stream while maintaining the ability to reconstruct a speech signal,” or “provide high quality of coding of acoustical signals at low bit rates.”

Frankly, the supposed “motivations” for combining the references make no sense at all.

Accordingly, for at least these reasons, Applicant respectfully submits that claim 1 is patentable over the cited art.

Claims 2-4 and 6

Claims 2-4 and 6 depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Among other things, in the methods of claims 2 and 3, distorting the bitstream of the primary signal comprises inserting local phase errors in the bitstream of the primary signal. Meanwhile, in the method of claim 3, the absolute value of the phase error is chosen such that it is smaller than the channel clock period of the primary channel. Furthermore, in the method of claim 4, low frequency variations are introduced into the channel clock of the primary channel

Applicant respectfully submits that Hagen does not disclose or suggest such features.

Claims 2 & 3

The Office Action states that Hagen “provides” encoding of an adaptive equalization operator by means of a bit stream “which may be separable from the bit stream of the primary coding algorithm.”

Of course, that is not what is recited in either claim 2 or claim 3. The Office Action make no mention whatsoever of: (1) inserting local phase errors in the bitstream; (2) an absolute value of the phase error; or (3) the channel clock period of the primary channel. Applicant respectfully submits that Hagen does not disclose

any of these features. Applicant respectfully submits that it is facially apparent that the Office Action has not supported any rejection of claims 2-3 under 35 U.S.C. § 103 over Hagen in view of Fukuda.

Claim 4

Among other things, in the method of claim 4, low frequency variations are introduced into the channel clock of the primary channel.

Applicant respectfully submits that Hagen does not disclose or suggest such a feature.

Neither FIG. 5 of Hagen nor the text at col. 8, lines 56-65, discloses or remotely suggests introducing low frequency variations into the channel clock of the primary channel. Indeed, neither the cited text nor FIG. 5 even mentions the channel clock!

Accordingly, for at least these additional reasons, Applicant respectfully submits that claims 2-4 are patentable over the cited art.

Claim 8

Among other things, the apparatus of claim 8 includes distortion means for distorting the bitstream of the primary signal such that the secondary signal is represented by a predetermined distortion.

As explained above with respect to claim 1, no proper combination of Hagen and Fukuda suggests distorting the bitstream of a primary signal such that a secondary signal is represented by a predetermined distortion. Furthermore, Applicant also respectfully traverses the proposed combination of Hagen and Fukuda with respect to claim 8, for similar reasons to those set forth above with respect to claim 1.

Accordingly, for at least these reasons, claim 8 is deemed patentable over the cited art.

Claim 10

Claim 10 is directed to an apparatus for recording a primary signal of a primary channel on a record carrier that includes the apparatus of claim 8. Accordingly, claim 10 is deemed patentable for at least the reasons set forth above

with respect to claim 8.

Claim 11

Among other things, the method of claim 11 includes detecting the distortion of a bitstream of a primary signal, and decoding a secondary signal from the distortion.

As explained above with respect to claim 1: (1) no combination of Hagen and Fukuda would produce a secondary signal of a secondary channel embedded in the bitstream of a primary signal of a primary channel, the secondary signal being represented by a predetermined distortion of the bitstream of the primary signal; and (2) no one of ordinary skill in the art at the time the invention was made would possibly have had any motivation or suggestion to combine Hagen and Fukuda as proposed in the Office Action.

Furthermore, Applicant respectfully submits that none of the cited references, alone or in combination, disclose or suggest detecting the distortion of a primary bitstream, and decoding a secondary signal from the distortion. In particular, nothing in the cited text at col. 2, lines 6-14 of Hagen discloses or even remotely suggests such features.

Accordingly, for at least these reasons, claim 11 is deemed patentable over the cited art.

Claim 13

Among other things, the apparatus of claim 13 includes detection means for detecting the distortion of the bitstream, and decoding means for decoding the secondary signal from the distortion.

As explained above with respect to claim 11: (1) no combination of Hagen and Fukuda would produce a secondary signal of a secondary channel embedded in the bitstream of a primary signal of a primary channel, the secondary signal being represented by a predetermined distortion of the bitstream of the primary signal; (2) no one of ordinary skill in the art at the time the invention was made would possibly have had any motivation or suggestion to combine Hagen and Fukuda as proposed in the Office Action; (3) none of the cited references, alone or in combination,

disclose or suggest detecting the distortion of a primary bitstream, and decoding a secondary signal from the distortion.

Accordingly, for at least these reasons, claim 13 is deemed patentable over the cited art.

Claim 15

Among other things, in the data carrier of claim 15, the bitstream of the primary signal is distorted before being stored on the data carrier such that a secondary signal is represented by a predetermined distortion.

As explained above with respect to claim 1, no proper combination of Hagen and Fukuda suggests distorting the bitstream of a primary signal such that a secondary signal is represented by a predetermined distortion. Furthermore, Applicant respectfully traverses the proposed combination of Hagen and Fukuda with respect to claim 15, for similar reasons to those set forth above with respect to claim 1.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 15 is patentable over the cited art.

Claim 19

Claim 19 depends from claim 6 and is therefore deemed patentable for at least the reasons set forth above with respect to claim 6.

Claim 5

Claim 5 depends from claim 1. Chao does not remedy the shortcomings of Hagen and Fukuda with respect to claim 1. Accordingly, claim 5 is deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Among other things, in the method of claim 5, the channel clock of the primary channel is modulated within the bandwidth of a phase locked loop circuit locked to the primary signal for synchronization.

Applicant respectfully submits that no proper combination of Hagen, Fukuda, and Chao would produce the claimed method including this feature. Also, Applicant respectfully traverses the proposed combination of Hagen, Fukuda, and Chao as

totally lacking any motivation whatsoever in the prior art.

Absolutely nothing in the cited text at col. 2, lines 43-52 of Chao discloses or remotely suggests modulating a channel clock of a primary channel within the bandwidth of a phase locked loop circuit locked to the primary signal for synchronization. Furthermore, the cited text at col. 10, lines 16-21 of Chao does not provide any motivation whatsoever for the proposed combination of references.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 5 is patentable over the cited art.

Claim 9

Claim 9 depends from depend from claim 8. Chao does not remedy the shortcomings of Hagen and Fukuda with respect to claim 8. Accordingly, claim 9 is deemed patentable for at least the reasons set forth above with respect to claim 8, and for the following additional reasons.

Applicant respectfully traverses the proposed combination of Hagen, Fukuda, and Chao as totally lacking any proper motivation in the prior art. **Indeed, the Office Action does not even bother to try to provide any reason or suggestion why anyone of ordinary skill in the art at the time the invention was made would have made the proposed combination. Lacking any stated motivation for the combination, the rejection is clearly contrary to M.P.E.P. § 2143.01 and should be withdrawn.**

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 9 is patentable over the prior art.

Claim 12

Claim 12 depends from claim 11. Chao does not remedy the shortcomings of Hagen and Fukuda with respect to claim 11. Accordingly, claim 12 is deemed patentable for at least the reasons set forth above with respect to claim 11, and for the following additional reasons.

Among other things, the method of claim 12 includes detecting, in a primary signal, distortion representing a secondary signal, in a phase locked loop circuit.

The Office Action states that the rate at which information is transferred from

a receiver-buffer to a receiving customer premises equipment is averaged by a digital phase locked loop, and that the phase detector monitors the occupancy of the receive-buffer adjusts a VCO output to maintain the occupancy within a certain range.

So what? This not being what is claimed in claim 1. What does any of that have to do with detecting, in a primary signal, distortion representing a secondary signal, in a phase locked loop circuit? Applicant respectfully submits that the cited text in Chao does not disclose or suggest the above-recited features of claim 12.

Furthermore, Applicant respectfully traverses the proposed combination of Hagen, Fukuda, and Chao as totally lacking any proper motivation in the prior art. The cited text at col. 10, lines 16-21 of Chao does not provide any motivation whatsoever for the proposed combination of references.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 12 is patentable over the cited art.

Claim 18

Claim 18 depends from claim 5 and is deemed patentable over the cited art for at least the reasons set forth above with respect to claim 5, and for the following additional reasons.

The Office Action fails to substantively examine claim 18, instead stating that it has limitations “similar to those of claim 5.”

Applicant respectfully disagrees.

Claim 18 includes a feature wherein the channel clock of the primary channel is modulated with a phase or frequency modulated sine wave. Claim 5 does not recite any such feature.

Applicant has paid all of the fees required for each and every one of the claims submitted here, and respectfully insist that under the rules of the U.S. Patent Office, Applicant is therefore entitled to a full, fair, and complete examination of each pending claim. The Examiner is respectfully requested to provide some citation to anything in the cited references disclosing or suggesting that the channel clock of a primary channel is modulated with a

phase or frequency modulated sine wave, or else allow claim 18.

Claim 7

Claim 7 depends from claim 1. Van Wie does not remedy the shortcomings of Hagen and Fukuda with respect to claim 1. Accordingly, claim 7 is deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Applicant respectfully traverses the proposed combination of Hagen and Fukuda with Van Wie as totally lacking any proper motivation in the prior art. The “motivations” offered in the Office Action make no sense at all.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 7 is patentable over the prior art.

Claim 14

Claim 14 is directed to apparatus for replaying data stored on a record carrier that includes the apparatus of claim 13.

Van Wie does not remedy the shortcomings of Hagen and Fukuda with respect to claim 13. Accordingly, claim 14 is deemed patentable for at least the reasons set forth above with respect to claim 13, and for the following additional reasons.

Applicant respectfully traverses the proposed combination of Hagen, Fukuda, and Van Wie as totally lacking any proper motivation in the prior art. The “motivations” offered in the Office Action make no sense at all.

Accordingly, for at least these additional reasons, Applicant respectfully submits that claim 14 is patentable over the prior art.


CONCLUSION

In view of the foregoing explanations, Applicant respectfully requests that the Examiner reconsider and reexamine the present application, allow claims 1-19 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment (except for the issue fee) to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

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